

SYSTEMS AND METHODS FOR PROCESSING SIGNALS FROM AN INTERFEROMETER BY AN ULTRASOUND CONSOLE

Related Applications

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[0001] The present application is a continuation-in-part of U.S. Patent Application Serial No. 09/909,357, filed on July 18, 2001, and U.S. Patent Application Serial No. 09/906,903, filed on July 16, 2001, which are assigned to the assignee of the present application and are incorporated by reference herein, in their entireties. This application is related to U.S. Patent Application Serial No. 10/17534, titled DIFFRACTION GRATING BASED INTERFEROMETRIC SYSTEMS AND METHODS (Attorney Docket No. 265/222), filed on the same day as the present application, assigned to the assignee of the present application and incorporated by reference, herein, in its entirety.

Field of the Invention

[0002] The invention relates generally to imaging systems and methods, and, more particularly, to the processing of data from Optical Coherence Tomographic systems.

Background of the Invention

[0003] Ultrasound medical imaging is a commonly used procedure to produce images of internal body cavities such as blood vessels and surrounding tissue. In ultrasound imaging of a blood vessel, an Intravascular Ultrasound ("IVUS") catheter is typically inserted into the blood vessel in a known manner. The IVUS catheter comprises an elongated member with an ultrasound transducer located at a distal end of the elongated member. The elongated member is inserted into the blood vessel, and the ultrasound transducer is positioned at a desired location in the blood vessel. The transducer emits ultrasound waves in the blood vessel or other such cavity when excited by a pulse. A portion of the emitted ultrasound waves is reflected back to the